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PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION.

Improvements in or relating to Cushioning Devices for Use Inside Footwear.

We, THOMAS FRANCIS FARRIMOND, British subject, of 99, Abbey House, Westminster, London, S.W. 1, and JAMES HENRY HOSEASON, British subject, of 28, Church Street, Hampton, Middlesex, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in pads for supporting the feet.

According to this invention we provide an inflatable pad which is preferably formed integral with a sock.

In its preferred form the pad is so shaped as to support the arch of the foot.

The pad is made of rubber or other suitable flexible material reinforced with canvas or the like by means of which the correct shape is imparted to the pad.

Preferably the pad, and also the sock, when the pad is made integral therewith, are covered with down.

The pad may also be extended so as to form a support for the heel and also a support for the ball of the foot. The sock may be made of any suitable material such as cork or rubber.

The pad is provided with a tube by means of which it can be inflated, the said

tube being preferably located at the side so as to be out of the way. This tube may after inflation be doubled over on itself and held by a clip or may be inserted in a pocket formed in the boot or shoe. Or the tube may be provided with a valve which may conveniently comprise a cylindrical body, one end of which is secured to the tube while the other is screw threaded to receive a pump. The body is provided with a diaphragm which may be of metal or rubber and is provided with an orifice which is normally sealed by a ball of such diameter, that it projects slightly through the orifice, and in order that any desired quantity of air may be released from the pad to lessen the pressure therein we may provide a spindle which can be moved against the action of a spring to push the ball away from the orifice.

Dated this 4th day of January, 1924.

CARPMAELS & RANSFORD,

Agents for Application

24, Southampton Buildings, London, W.C. 2.

COMPLETE SPECIFICATION.

Improvements in or relating to Cushioning Devices for Use Inside Footwear.

We, THOMAS FRANCIS FARRIMOND, British subject, of 99, Abbey House, Westminster, London, S.W. 1, and JAMES HENRY HOSEASON, British subject, of 28, Church Street, Hampton, Middlesex, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements
[Price 1/-]

in inflatable pads for supporting the feet.

The main object of our invention is to provide means for readily releasing the air from the pad while this latter is in use.

Our invention consists in the combination of an inflatable pad for supporting the foot, a valve for admitting air thereto, and means integral with the said valve for readily releasing the air from

the pad to any desired extent during wear.

The inflatable pad may be formed integral with a sock, and in its preferred form is so shaped as to support the arch of the foot. The pad is preferably made of rubber or other suitable flexible material, reinforced with canvas or the like by means of which the correct shape is imparted to the pad.

The pad may also be extended so as to form a support for the heel and also a support for the ball of the foot. The sock may be made of any suitable material such as cork or rubber.

We are aware of the Specifications Nos. 13,650 of 1909 and 28,830 of 1913 and do not claim anything described therein.

In one way of carrying out the present invention, the pad is provided with a tube by means of which it can be inflated, the said tube being preferably located at the side so as to be out of the way and of such length that the valve hereinafter referred to can be actuated while the pad is in use. The tube is provided with a valve which may conveniently comprise a cylindrical body, one end of which is secured to the tube, while the other is screw threaded to receive a pump. The body is provided with a diaphragm which may be of metal or rubber and is provided with an orifice which is normally sealed by a ball of such diameter that it projects slightly through the orifice, and in order that any desired quantity of air may readily be released from the pad to lessen the pressure therein, we provide a spindle which can be moved against the action of a spring to push the ball away from the orifice.

Preferably the tube is oval or flattened in order that it may impose the least inconvenience on the wearer.

In the accompanying drawing which illustrates the invention, Figure 1 is a plan of a cushioning device for a right foot, Figure 2 a section on the line 2—2, Figure 3 a side elevation, Figure 4 a detail section, and Figure 5 a section on the line 5—5. Figure 6 is a section of a modified form of valve, and Figure 7 is a section on the line 7—7, Figure 6.

Referring more particularly to Figures 1 to 5, 1 is a sock; 2 is an inflatable pad attached to the underside of the sock 1 and adapted to support the arch of the foot. 3 is a pipe of flexible material such as rubber, which is in communication at one end with the pad, and is provided at the other end with a valve comprising

a valve body 4 provided with a diaphragm 5 having a central aperture, normally sealed by a ball 6, the latter being pressed into engagement with the hole in the diaphragm by a spring 7.

In order that any desired quantity of air may be released from the pad to lessen the pressure, there is provided a plunger 8 having a thumb piece 9 at its upper end. The plunger 8 is guided at its lower end by a spider 10. The upper end of the valve body 4 is screw threaded to receive a pump. The pipe 3 is of such length that the thumb piece 9 can readily be operated while the pad 2 is in use.

Preferably the valve is made as small as possible so as to cause the least inconvenience to the wearer, and in order that the said valve may be inflated by an ordinary bicycle pump, we may provide an adapter.

In Figures 6 and 7, which show a modification of the valve shown in Figure 4, 11 is a flattened cone adapted to engage a seating 12, carried in an oval tube 4 forming the valve body. The cone 11 is mounted on a plunger 8 having a thumb piece 9 at its upper end, by means of which the cone 11 can be depressed to release air, if desired.

Preferably either the cone 11 or the seating 12 is made of rubber or like flexible material.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. The combination of an inflatable pad for supporting the foot, a valve for admitting air thereto, and means integral with the said valve for readily releasing the air from the pad to any desired extent during wear, substantially as described.

2. An arrangement as claimed in Claim 1, in which the pad is secured to a sock, substantially as described.

3. An arrangement as claimed in Claim 1, in which the valve for admitting air to the pad is connected thereto by a flattened or oval tube of flexible material, substantially as described.

4. A pad for supporting the foot, substantially as described with reference to the accompanying drawing.

Dated this 4th day of November, 192

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